

CLAIMS

1 1. Extruder with at least one screw in at least one axially oriented bore (2, 3)
2 in a barrel and with a cutting plate (4) of a granulating unit, characterized in that the cutting plate
3 (4) is connected directly to the end of the barrel at the downstream end of the extruder, and in
4 that heating elements are located in the barrel in the immediate vicinity of the contact surface
5 between the barrel and the cutting plate (4).

1 2. Extruder according to Claim 1, characterized in that the barrel is built up in
2 modular fashion out of axial barrel segments (1).

1 3. Extruder according to one of the preceding claims, characterized in that the
2 heating elements are heating cartridges.

1 4. Extruder according to Claim 3, characterized in that the heating cartridges are
2 installed in continuous bores (8) passing all the way through the barrel.

1 5. Extruder according to Claim 4, characterized in that the heating cartridges are
2 arranged in the barrel in such a way as to form a square.

1 6. Extruder according to one of the preceding claims, characterized in that two
2 screws are mounted in overlapping, axially oriented bores (2, 3), and in that, with respect to the
3 transport direction of the screws, the bores (2, 3) are followed by a channel (5), the outlet-side
4 cross section of which is congruent with the cross section of the feed opening of the attached
5 cutting plate (4).

1 7. Extruder according to Claim 2 and Claim 6, characterized in that the
2 overlapping, axially oriented bores (2, 3) extend all the way to the inlet-side part of the last barrel
3 segment (1); in that the screws in this last barrel segment (1) have a shape which causes the
4 pressure to build up in the extrudate when they turn; and in that the channel (5) adjoining the
5 bores (2, 3) is located in the outlet-side part of the last barrel segment (1).

1 8. Extruder according to one of the preceding claims, characterized in that the
2 barrel has a mounting recess (9), in which at least half of the volume of the cutting plate (4) is
3 accommodated.

1 9. Use of an extruder according to one of the preceding claims to granulate
2 thermoplastic compositions as part of a compounding process.